

PRIMERGY[®]

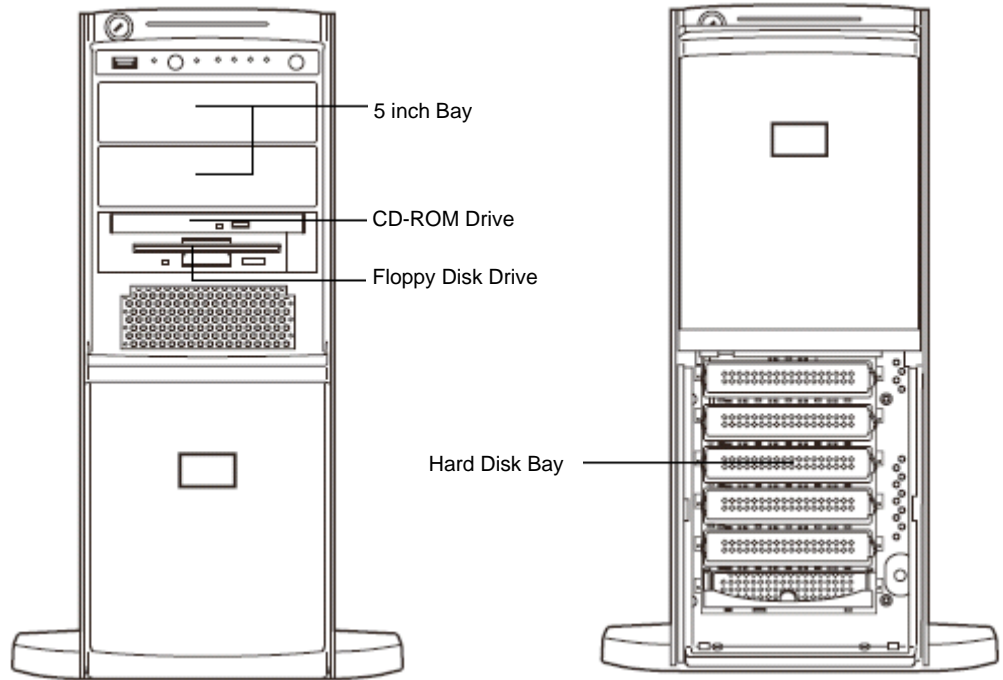
System Configuration and Order-information Guide

TX200 S3

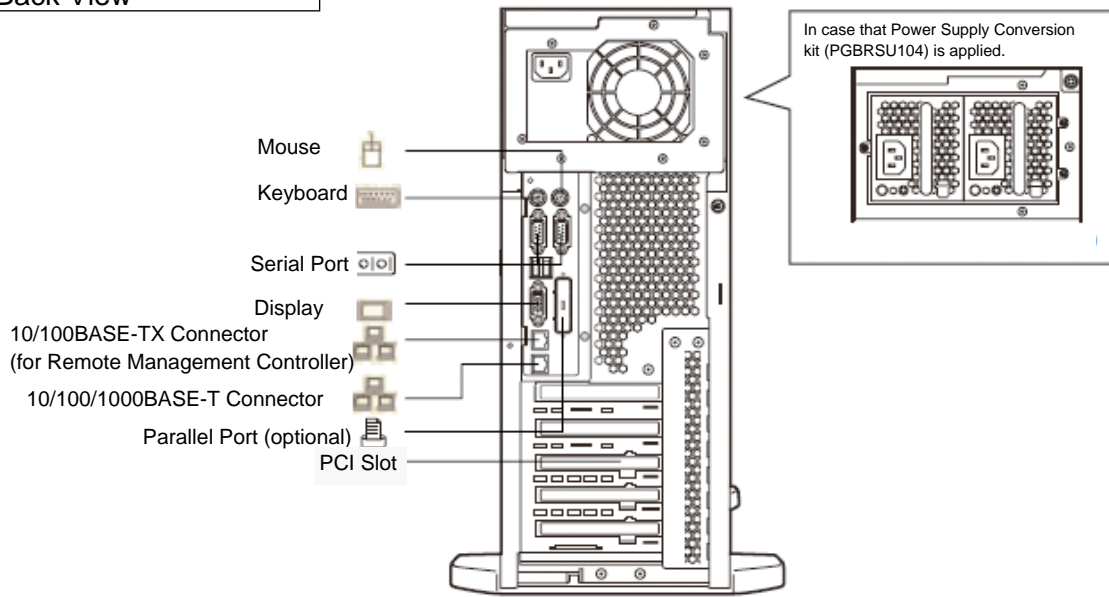
March 2008

PRIMERGY TX200 S3

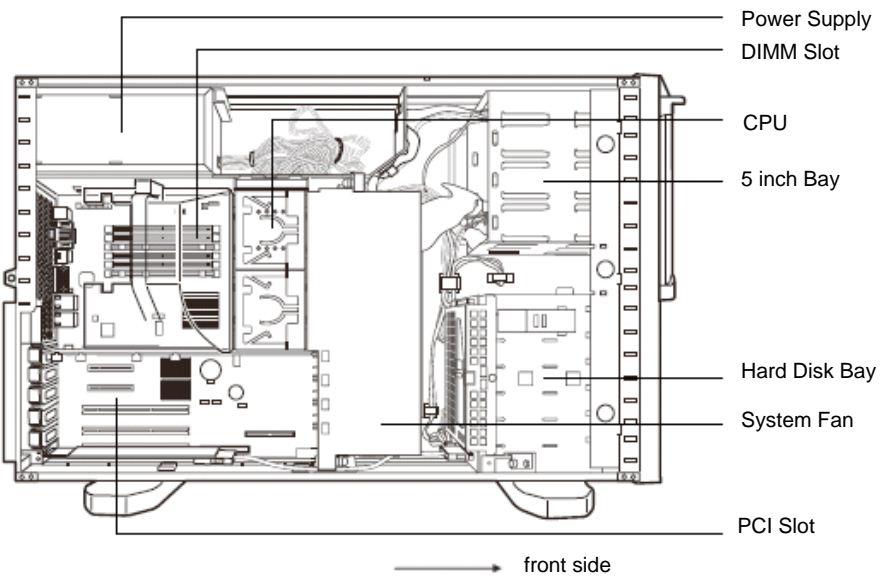
Front View



Back View



Inside View



Instruction

This document contains basic product and configuration information that will enable you to configure your system.

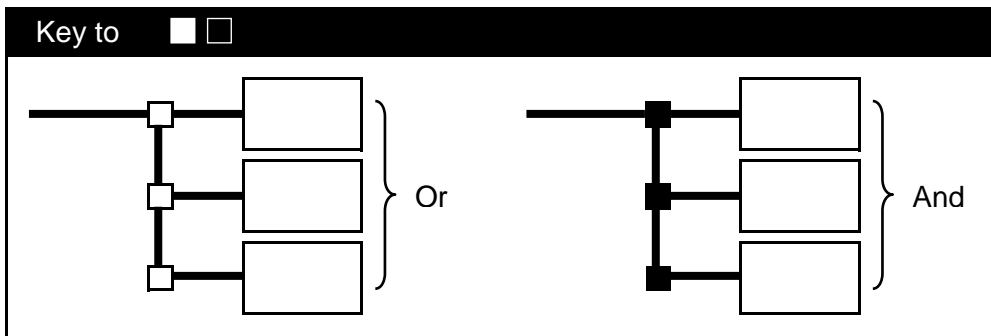
Only these tools will ensure a fast and proper configuration of your PRIMERGY server or your complete PRIMERGY Rack system.

You can configure your individual PRIMERGY servers in order to meet your specific requirements.

Please follow the lines. If there is a junction, you can choose which way or component you would like to take.

Go through the configurator by following the lines from the top to the bottom.

The color of the junction means as follows.



PRIMERGY TX200 S3

Data Sheet

Type		Dual-Processor Tower Server
Base Unit	Xeon® 5110 (1.60GHz)	PGUT2033A
CPU	Frequencies	Quad-Core Intel® Xeon® X5355 (2.66GHz) *6 / E5310 (1.60GHz) *7 / Dual-Core Intel® Xeon® 5160 (3GHz) *8 / 5130 (2GHz) *9 / 5110 (1.60GHz)
	Second-Level-Cache	2x4MB (Quad-Core Intel® Xeon® X5355 (2.66GHz) / E5310 (1.60GHz)) / 4MB (Dual-Core Intel® Xeon® 5160 (3GHz) / 5130(2GHz) / 5110 (1.60GHz))
	Multi-Processor	1 (max. 2)
Front-Side-Bus		1333MHz (Quad-Core Intel® Xeon® X5355 (2.66GHz) / Dual-Core Intel® Xeon® 5160 (3GHz) / 5130 (2GHz)) / 1066MHz (Quad-Core Intel® Xeon® E5310 (1.60GHz) / Dual-Core Intel® Xeon® 5110 (1.60GHz))
Chipset		Intel® 5000V
Memory	Standard	1GB (512MB ECC DDR2 SDRAM Fully Buffered DIMM x 2, PC2 5300F) (SDDC(Single Device Data Correction) supported)
	Maximum *1	16GB (ECC DDR2 SDRAM Fully Buffered DIMM, PC2 5300F)
Graphics Controller		incl. Remote Management Controller, VRAM : 1.7MB
Resolution *2	640x480 dot	16777216 colors
	800x600 dot	16777216 colors
	1024x768 dot	65536 colors
	1280x1024 dot	256 colors
Internal Bays 3.5 inch HDD (SAS)	Number of bays	6 (8 by applying Internal HDD Unit Bay Conversion kit (PG-BC103)) (hot plug)
	Available HDD *3	73.4GB (PG-HDB75A) 15krpm, SAS 146.8GB (PG-HDB45A) 15krpm, SAS 300.0GB (PG-HDB35A) 15krpm, SAS
	Maximum *3	1.8TB (2.4TB by applying Internal HDD Unit Bay Conversion kit (PG-BC103)) *10
Internal Bays 5inch		3 (2 free bays) (1 (0 free bay) by applying Internal HDD Unit Bay Conversion kit (PG-BC103))
CD-ROM		standard (Max. 24 ATAPI)
PCI Slots	PCI Express (x8) [x8]	1
	PCI Express (x4) [x8]	1
	PCI-X (64bit/100MHz) [3.3V] *4	2 (1 x Full Size)
	PCI (32bit/33MHz) [5.0V]	1 (1 x Full Size)
	PCI-X (64bit/100MHz) [3.3V]	1 (SAS Controller occupies one slot.)
RAID Controller		standard (SAS Controller)
SAS Controller		SAS x 8ports (Installed as standard) (with RAID1 function)
Internal FDD		3.5inch (1.44MB/720KB)
Network Controller (onboard)		1 port (1000BASE-T/100BASE-TX/10BASE-T)
Interfaces		Display (Analog RGB), Serial Port x 2 (D-SUB 9pins), Parallel Port (optional, D-SUB 25pins) Keyboard (PS/2type Mini DIN 6pins), Mouse (PS/2type Mini DIN 6pins) USB x 5 (ver. 2.0) (Internal : x 2, External : x 3)
Server Management Software		ServerView (Standard)
Remote Service function		standard (onboard, Remote Management Controller)
Power supply	connector	1 port (100BASE-TX/10BASE-T)
	Voltage	AC 100-127V (50/60Hz) / AC 200-240V (50/60Hz) x 1 (AC 100-127V (50/60Hz) / AC 200-240V (50/60Hz) x 2 when Power Supply Conversion kit (PGBRSU104) is applied.)
	Power consumption	575W / 2070kJ/h (max.)
Redundant power supply		optional (hot plug when Power Supply Conversion kit (PGBRSU104) is applied.) optional (hot plug when Power Supply Conversion kit (PGBRSU104) is applied.)
Redundant Fan		
Dimensions (mm)		Tower : 174 (286 incl. protruding parts)(W) x 755 (D) x 474 (H) Rackmount (when Rack Conversion kit for TX200 S3 (PG-R1CK20/PGBR1CK20) is applied.) : 483 (W) x 700 (750 incl. protruding parts) (D) x 177 (4U) (H)
Weight		Tower : 38kg (max.) / Rackmount: 40kg (max.)
Environmental Conditions		Temperature 10-35°C / Humidity 20-80% (non condensing)
OS Support *5		Windows Server® 2003 R2, Standard Edition / Windows Server® 2003 R2, Standard Edition (SP2 *11) Windows Server® 2003 R2, Enterprise Edition / Windows Server® 2003 R2, Enterprise Edition (SP2 *11) Windows Server® 2003, Standard Edition (SP1/SP2 *11) / Windows Server® 2003, Enterprise Edition (SP1/SP2 *11) Windows Server® 2003 R2, Standard x64 Edition / Windows Server® 2003 R2, Standard x64 Edition (SP2 *11) Windows Server® 2003 R2, Enterprise x64 Edition / Windows Server® 2003 R2, Enterprise x64 Edition (SP2 *11) Windows Server® 2003, Standard x64 Edition / Windows Server® 2003, Standard x64 Edition (SP2 *11) Windows Server® 2003, Enterprise x64 Edition / Windows Server® 2003, Enterprise x64 Edition (SP2 *11) Windows® 2000 Server (SP4) / Windows® 2000 Advanced Server (SP4) Red Hat Enterprise Linux AS (v.3 for x86) *12 *13 / Red Hat Enterprise Linux ES (v.3 for x86) *12 *13 Red Hat Enterprise Linux AS (v.4 for x86) *12 / Red Hat Enterprise Linux ES (v.4 for x86) *12 Red Hat Enterprise Linux AS (v.4 for EM64T) *12 / Red Hat Enterprise Linux ES (v.4 for EM64T) *12 Red Hat Enterprise Linux 5 (for x86) *12 *14 / Red Hat Enterprise Linux 5 (for Intel64) *12 *14
Attached tool (Standard)		ServerStart (Setup Support tool) *15

*1. Available memory capacity will be changed by the type of OS. Please find more details in Notes[Memory OS Compatibility List].

*2. Resolution is determined by functions of the display monitor and OS.

*3. HDD capacity is calculated according to the formulas 1GB=1000³ byte and 1TB=1000³ byte.

*4. Frequency will be changed by the spec of PCI card and number of cards mounted.

*5. Drivers for Linux are not attached. Please download and use drivers of the following URL.

<http://www.fujitsu.com/global/services/computing/server/ia/driver/>

*6. CPU Conversion kit: Xeon 5110(1.60GHz/4MB) -> Xeon X5355(2.66GHz/2x4MB) (PGBFU405) is available for upgrading to Quad-Core Intel® Xeon® X5355 2.66GHz.

*7. CPU Conversion kit: Xeon 5110(1.60GHz/4MB) -> Xeon E5310(1.60GHz/2x4MB) (PGBFU403) is available for upgrading to Quad-Core Intel® Xeon® E5310 1.60GHz.

*8. CPU Conversion kit: Xeon 5110(1.60GHz/4MB) -> Xeon 5160(3GHz/4MB) (PGBFU30T2) is available for upgrading to Dual-Core Intel® Xeon® 5160 3GHz.

*9. CPU Conversion kit: Xeon 5110(1.60GHz/4MB) -> Xeon 5130(2GHz/4MB) (PGBFU30S2) is available for upgrading to Dual-Core Intel® Xeon® 5130 2GHz.

*10. In case that SAS Controller installed as standard is used for RAID configuration, only 2 HDDs of same capacity and same rpm can be connected.

*11. There are some notes for Windows 2003 SP2. Please refer to Notes of Support Matrix.

<http://www.fujitsu.com/downloads/PRMRGY/support-matrix.pdf>

*12. Regarding supported kernel versions of Linux, please refer to the following list.

<http://www.fujitsu.com/downloads/PRMRGY/linux-os-kernel-compatibility-list.pdf>

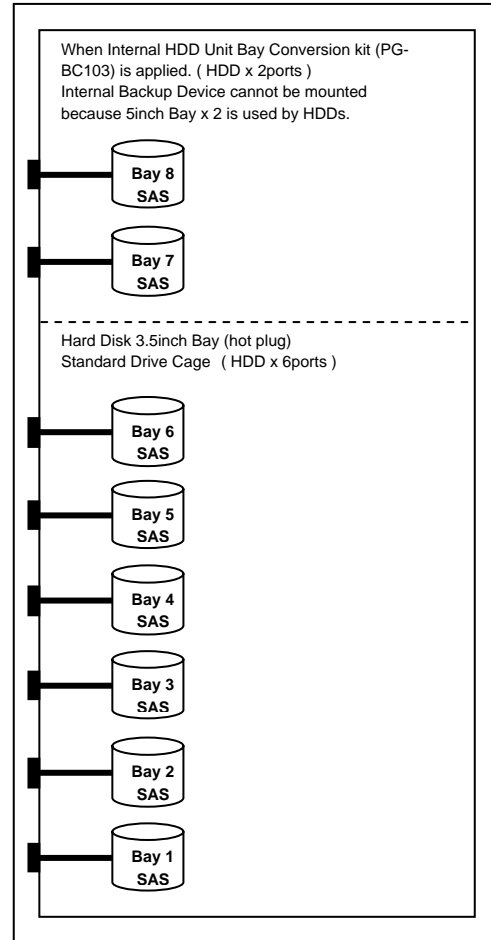
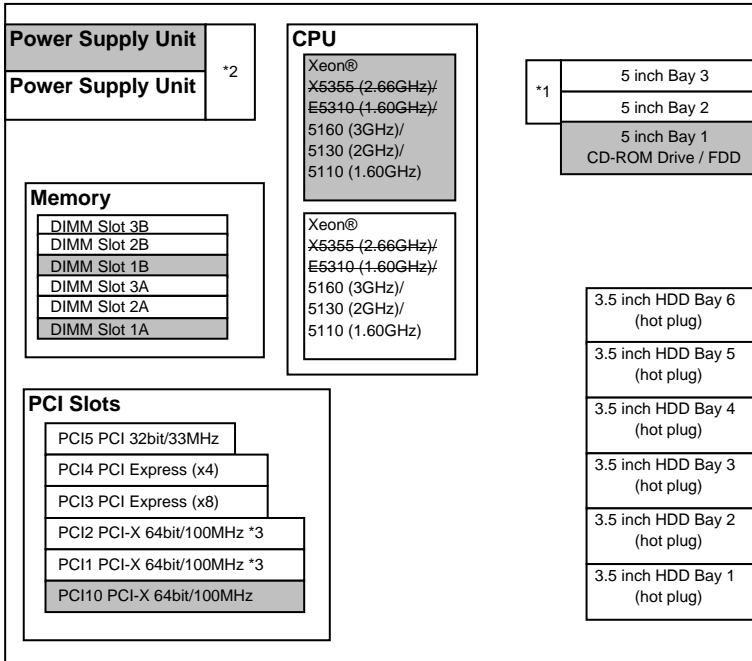
*13. Quad-Core Intel® Xeon® X5355 (2.66GHz) / E5310 (1.60GHz) are not included.

*14. Total number of cores of CPU(s) should be four or more for using VM (Virtual Machine) function.

*15. ServerStart doesn't support Linux.

*. Noise level is 37dB. (Noise level is 47dB when Power Supply Conversion kit (PGBRSU104) is applied.)

Configuration Diagram



*1. By applying Internal HDD Unit Bay Conversion kit (PG-BC103), 5 inch bay x 2 can be converted to 3.5 inch bay x 2.

When Internal HDD Unit Bay Conversion kit (PG-BC103) is applied, Internal Backup Device cannot be mounted on 5inch Bay.

*2. By applying Power Supply Conversion kit (PGBRSU104), non-redundant structure (Power Supply x1, FAN x2) can be converted to redundant structure (Power Supply x2, FAN x6).

*3. Frequency will be changed by the spec of PCI card and number of cards mounted.

*Components installed as standard configuration marked in grey.

Mountable I/O Options

Mount Priority	Mountable Cards	Bus	PCI Slot					Max No. of Mount	Remarks		
			10	1	2	3	4			5	
			PCI-X		PCI Express		PCI				
			64bit/100MHz	64bit/100MHz *1	x8 lane	x4 lane	32bit/33MHz				
			Full Height								
			3.3V	x8 socket		5.0V					
High ↑ ↓ Low	SAS Controller (8ports)	-	PCI-X/64bit	#	-	-	-	-	-	1	Standard, Internal array
	SAS RAID Ctrl	PG-140F / PGB140F	PCI-X/64bit	-	[1]	-	-	-	-	1	Internal array
	SAS RAID Ctrl	PG-140G / PGB140G	PCI-X/64bit	-	[1]	-	-	-	-	1	Internal array
	Eth. Ctrl 1000-BASE-T Cu	PG-1892 / PGB1892	PCI-X/64bit	-	[1]	[2]	-	-	[3]	2	* No AFT/ALB Support
	Eth. Ctrl 1x1Gbit PCI 1000-BASE-T	PG-1853 / PGB1853	PCI/32bit	-	[1]	[2]	-	-	[3]	2	
	Eth. Ctrl 1000-BASE-SX Fibre LC	PG-1882	PCI-X/64bit	-	[1]	[2]	-	-	[3]	2	
	Eth. Ctrl 2x1Gbit PCI-X 1000-BASE-T	PG-1863	PCI-X/64bit	-	[1]	[2]	-	-	[3]	2	
	RAID Ctrl 2-Channel 128MB w/ BBU	PG-142E3 / PGB142E3	PCI/64bit	-	[2]	[1]	-	-	[3]	2	External array
SCSI Ctrl U160	PG-1281 / PGB1281	PCI/64bit	-	[2]	[1]	-	-	[3]	2	Internal/External SCSI Controller	
High ↑ ↓ Low	Fibre Channel Controller	PG-FC202 / PGBFC202	PCI Express (x4)	-	-	-	[1]	[2]	-	2	PCI Express Card
	Eth. Ctrl 2x1Gbit PCI-E 1000-BASE-T	PG-2861 / PGB2861	PCI Express (x4)	-	-	-	[1]	[2]	-	2	PCI Express Card
	Eth. Ctrl 1x1Gbit PCI-E 1000-BASE-T	PG-289 / PGB289	PCI Express (x1)	-	-	-	[1]	[2]	-	2	PCI Express Card
	Eth. Ctrl 1x1Gbit PCI-E 1000BASE-SX	PG-288	PCI Express (x4)	-	-	-	[1]	[2]	-	2	PCI Express Card

* [n] : Installation Priority

* # : standard

* - : cannot be installed

*1.Frequency will be changed by the spec of PCI card and number of cards mounted.

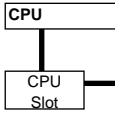
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Connection Table

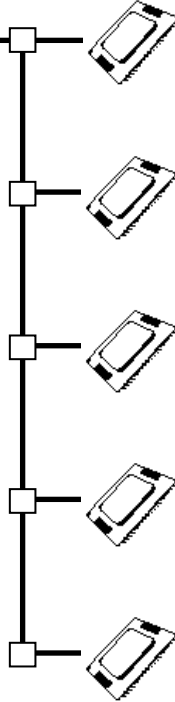
Form factor conversion
(Tower to Rackmount)



Rack Conversion kit for TX200 S3
(Tower to Rackmount (4U))
PG-R1CK20
PGBR1CK20 (for CTO)



Max: 2 CPU

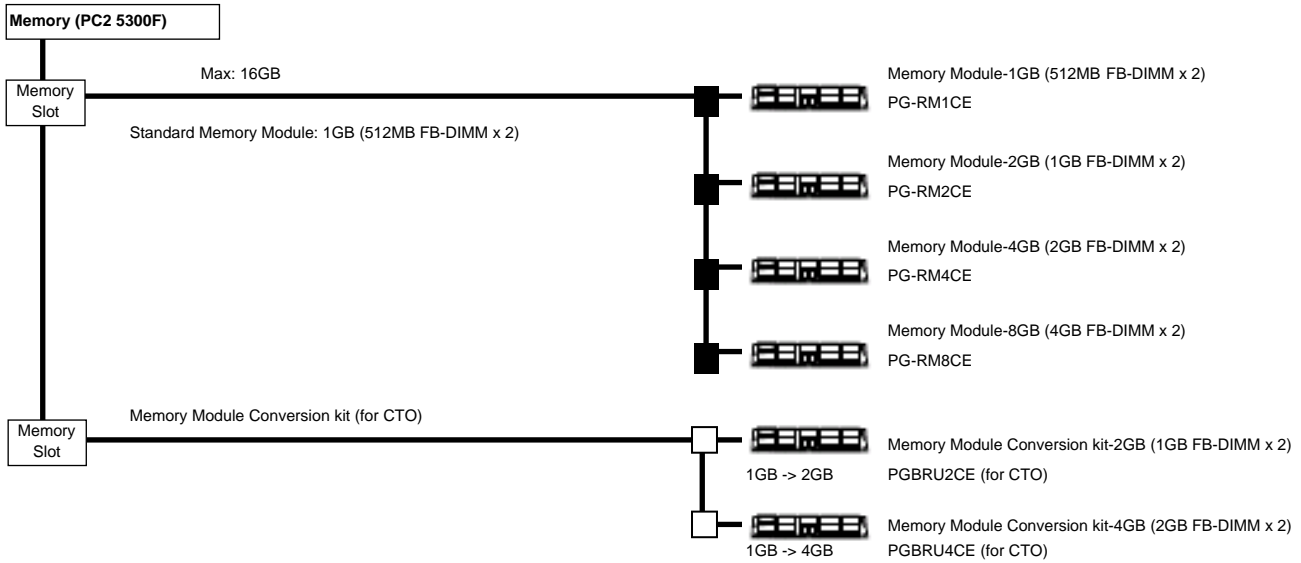


- Processor Xeon X5355 2.66GHz/2x4MB
PG-FG405
PGBFG405 (for CTO)
*. This option is available when CPU Conversion Kit:
- Xeon 5110(1.60GHz/4MB) -> Xeon X5355(2.66GHz/2x4MB) (PGBFU405) is applied.
- Processor Xeon E5310 1.60GHz/2x4MB
PG-FG403
PGBFG403 (for CTO)
*. This option is available when CPU Conversion Kit:
- Xeon 5110(1.60GHz/4MB) -> Xeon E5310(1.60GHz/2x4MB) (PGBFU403) is applied.
- Processor Xeon 5160 3GHz/4MB
PG-FG30T
PGBFG30T (for CTO)
*. This option is available when CPU Conversion Kit:
Xeon 5110(1.60GHz/4MB) -> Xeon 5160(3GHz/4MB) (PGBFU30T2) is applied.
- Processor Xeon 5130 2GHz/4MB
PG-FG30S
PGBFG30S (for CTO)
*. This option is available when CPU Conversion Kit:
Xeon 5110(1.60GHz/4MB) -> Xeon 5130(2GHz/4MB) (PGBFU30S2) is applied.
- Processor Xeon 5110 1.60GHz/4MB
PG-FG30R
PGBFG30R (for CTO)
*. This option is available when the processor of the base unit
is Processor Xeon 5110(1.60GHz/4MB).

*CPU Conversion Kit (available only as a Configure To Order (CTO) option; no separate shipment is possible)

Type	Product ID	
CPU Conversion Kit: Xeon 5110(1.60GHz/4MB) -> Xeon X5355(2.66GHz/2x4MB) (for CTO)	PGBFU405	Dual-Core Intel® Xeon® 5110(1.60GHz/4MB) -> Quad-Core Intel® Xeon® X5355(2.66GHz/2x4MB) Convert the CPU installed as standard in the base unit to the other. (Note: This option can be ordered only as coupled with the base unit. A separate shipment is not possible.)
CPU Conversion Kit: Xeon 5110(1.60GHz/4MB) -> Xeon E5310(1.60GHz/2x4MB) (for CTO)	PGBFU403	Dual-Core Intel® Xeon® 5110(1.60GHz/4MB) -> Quad-Core Intel® Xeon® E5310(1.60GHz/2x4MB) Convert the CPU installed as standard in the base unit to the other. (Note: This option can be ordered only as coupled with the base unit. A separate shipment is not possible.)
CPU Conversion Kit: Xeon 5110(1.60GHz/4MB) -> Xeon 5160(3GHz/4MB) (for CTO)	PGBFU30T2	Dual-Core Intel® Xeon® 5110(1.60GHz/4MB) -> Dual-Core Intel® Xeon 5160(3GHz/4MB) Convert the CPU installed as standard in the base unit to the other. (Note: This option can be ordered only as coupled with the base unit. A separate shipment is not possible.)
CPU Conversion Kit: Xeon 5110(1.60GHz/4MB) -> Xeon 5130(2GHz/4MB) (for CTO)	PGBFU30S2	Dual-Core Intel® Xeon® 5110(1.60GHz/4MB) -> Dual-Core Intel® Xeon® Xeon 5130(2GHz/4MB) Convert the CPU installed as standard in the base unit to the other. (Note: This option can be ordered only as coupled with the base unit. A separate shipment is not possible.)

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*** Notes on installing memory**

1. Memory is installed by pairs of FB-DIMMs of the same capacity. Installation of one FB-DIMM or a mixed -capacity pair is impossible.
2. The memory capacities of the slots should be in ascending order in the following sequence:
DIMM slots 1A,1B (Bank 1) -> DIMM slots 2A,2B (Bank 2) -> DIMM slots 3A,3B (Bank 3)

(Available Memory Area)

	Mounted Memory	Available Memory Area
Windows® 2000 Server (SP4)	~3.0GB	Same as the size of mounted memory
	4.0GB	Size of Mounted Memory minus "1.0GB"
Windows® 2000 Advanced Server (SP4)	~7.0GB	Same as the size of mounted memory
	8.0GB	Size of Mounted Memory minus "1.0GB"
Others	~16.0GB	Same as the size of mounted memory

***. Spare Memory function**

In the case of using Spare Memory function, same DIMMs of two or more banks are required to be installed.
Available memory capacity is "installed memory" minus "capacity of Spare Memory (1 Bank)".

Connecting Internal HDD and Internal Backup Devices

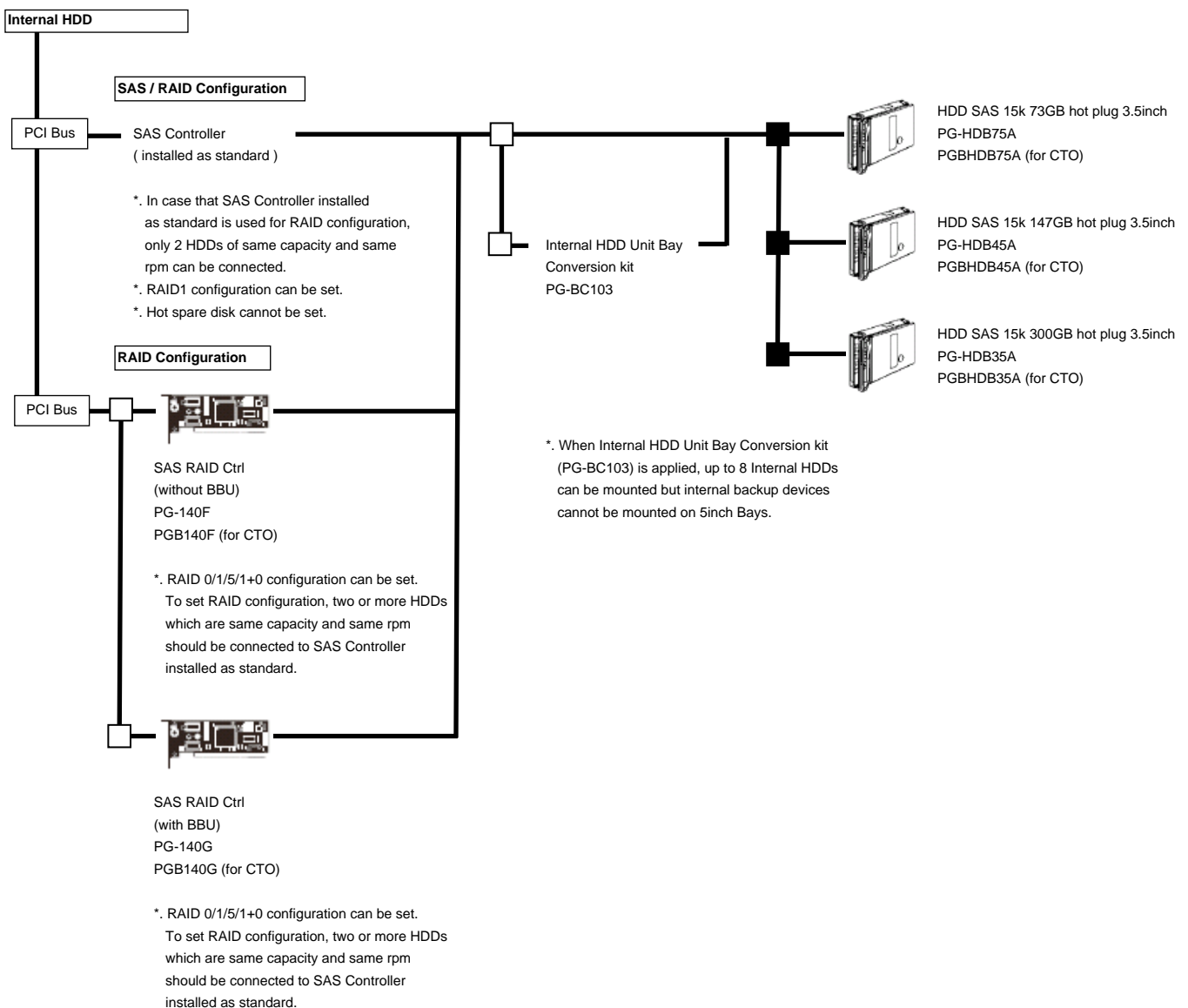
If you would like to order internal HDDs and internal backup devices, please order optional cards/cables according to the following table.

Type of HDD connection			Internal Backup Devices PRIMERGY TX200 S3	
Connection	Drive Cage	Interface	USB ("1) Connection	SCSI Wide ("2) Connection
SAS / RAID	Standard Drive Cage (6bays)	SAS Controller (standard) *. In case that SAS Controller installed as standard is used for RAID configuration, only 2 HDDs of same capacity and same rpm can be connected.	Onboard USB (internal port)	SCSI Card (PG-1281/PGB1281) SCSI Cable (PG-CBLS025) ("3)
	When Internal HDD Unit Bay Conversion kit (PG-BC103) is applied. (+2bays)	SAS Controller (standard) *. Only SAS Configuration is supported.	- (not connect)	- (not connect)
RAID	Standard Drive Cage (6bays)	SAS RAID Ctrl (PG-140F/PG-140G) (SAS Controller (standard))	Onboard USB (internal port)	SCSI Card (PG-1281/PGB1281) SCSI Cable (PG-CBLS025) ("3)
	When Internal HDD Unit Bay Conversion kit (PG-BC103) is applied. (+2bays)	SAS RAID Ctrl (PG-140F/PG-140G) (SAS Controller (standard))	- (not connect)	- (not connect)

("1) USB Backup Devices: PG-DT504

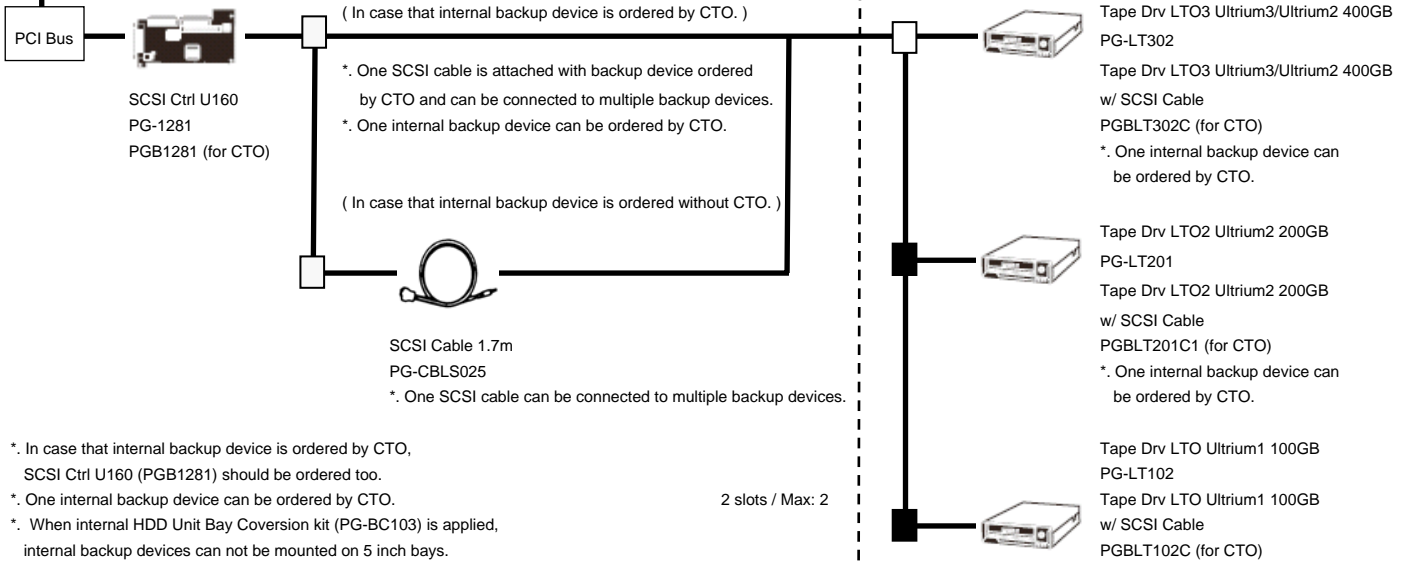
("2) SCSI Wide Backup Devices: PG-LT302/PG-LT201/PGBLT201C1/PG-LT102

("3) If you order internal backup devices by CTO, SCSI cable is attached with backup devices.

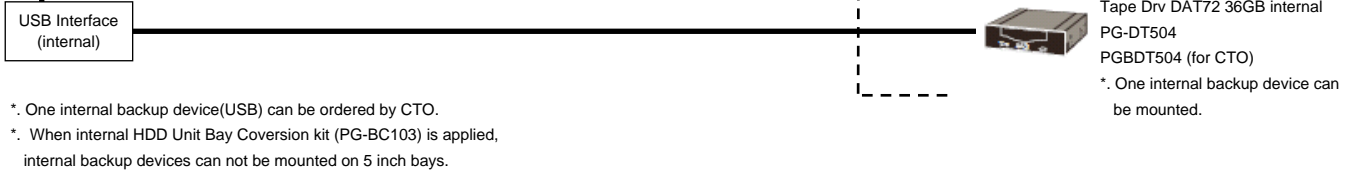


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Internal backup device



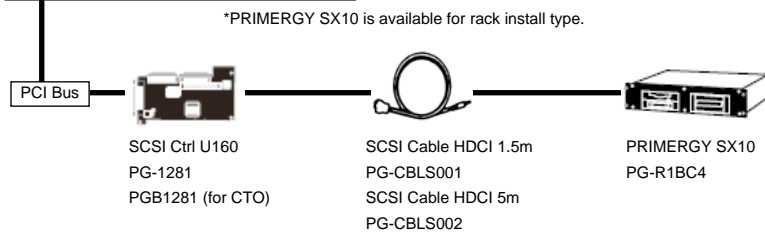
Internal backup device (USB)



Internal DVD-RAM

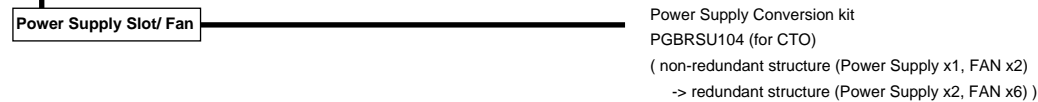


Internal backup device (PRIMERGY SX10)

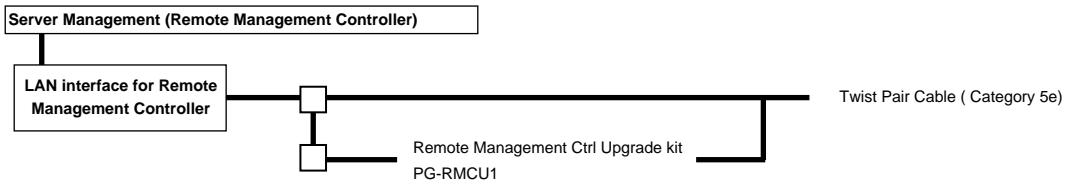
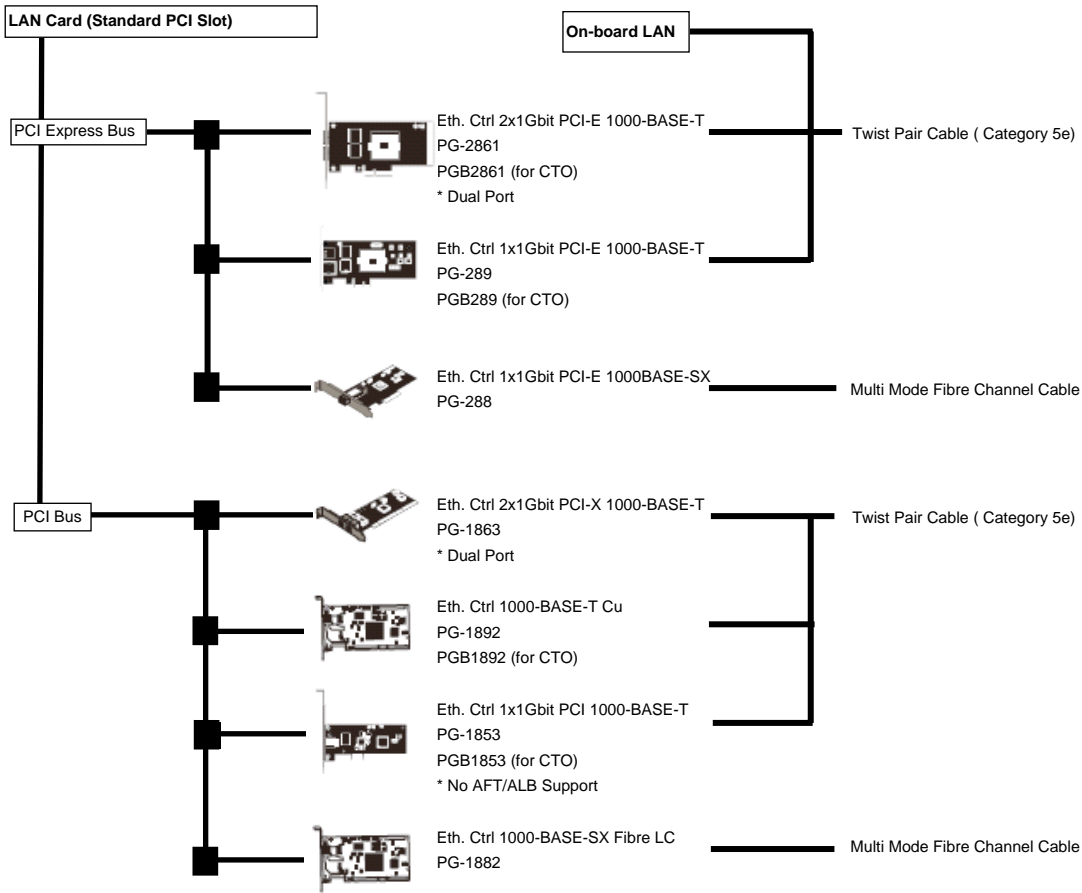


*Please find more information on the internal backup devices for PRIMERGY SX10 in Rackmount[Internal Backup Devices with PRIMERGY SX10]

Power Supply Units/ Fan (CTO only)



PRIMERGY TX200 S3



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System Products

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